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Copyright

GenCore version (c) 1993 - 2003

February

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2003,

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Scoring

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                          P. SEQUENCE.

P. SEQUENCE.

C. TISSUE-Venom;

X. MEDLINE-90351557; PubMed=2386615;

A. Cintra A.C.O., Vieira C.A., Gigilo J.R.;

T. Primary structure and biological activity of bradykinin pot peptides from Bothoops insularis snake venom.";

T. Primary structure and biological activity of the C.I. FUNCTION: THIS PEPTIDE BOTH INHIBITS THE ACTIVITY OF THE ANGIOTENSIN-CONVERTING ENZYME AND ENHANCES THE ACTION OF THE C. BRADYKININ BY INHIBITING THE KINASES THAT INACTIVATE IT.

C. PIR; G37196; G37196.

P. PIR; G37196; G37196.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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36
38
                                                                                                                                                                                                                                                                                                                                  BPP7_BOTIN STANDAKU;
P30425;
01-APR-1993 (Rel. 25, Created)
01-FEB-1994 (Rel. 28, Last sequence up
01-FEB-1994 (Rel. 28, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-1994
01-OCT-1994
01-FEB-1995
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SEQUENCE
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Lepidosauria; Squamata;
Viperidae; Crotalinae; P
NCBI_TaxID-8723;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE.
TISSUE=Fibroblast;
MEDLINE=95009907;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; C
Mammalia; Eutheria; R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOUSE
                                                                                                                                                                                                                                                                                        Bothrops insularis (Island jararaca) (Queimada jararaca)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute
                                                                                                                                                                                                                                                                                                                         Bradykinin-potentiating peptide enzyme inhibitor).
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Hypotensive MOD_RES
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        agent;
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(Rel. 30, Last sequence up
(Rel. 31, Last annotation)
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ata; Scleroglossa;
ae; Bothrops.
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Rodentia;
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RMO1_YEAST
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BIOB_CITFR
UXA4_CHLTR
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Pred. No. 1.1
0; Mismatches
PYRROLIDONE CARBOXYLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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(5A) (Angiotensin-converting
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Colubroidea;
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ACID
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P36515
P13071
P12997
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5 saccharomyc
1 citrobacter
7 citrobacter
5 chlamydia t
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Gaps

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Result

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Score

Match Query

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UFO1_MOUSE
BPP7_DOTIN
OCP3_OCMI
FARP_ARTTR
PRCT_ PERAM
FAR3_HIRME
FLRF_HIRME
FLRF_HIRME
FLRF_HIRME
FAR4_HIRME
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I FLRN_ANTEL
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Database

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Best Local S
Matches 1
MOD_RES
SEQUENCE 5 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hormone;
MOD_RES
SEQUENCE
                                                                                                                                                                                                                       Artioposthia triangulata.
Eukaryota; Metazoa; Platyhelminthes; Turbellaria; Seriata; Tricladida;
Terricola; Geoplanidae; Arthurdendyus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequency
15-JUN-2002 (Rel. 41, Last annotat
15-JUN-2002 (Rel. 41, Last annotat
cardioactive peptides Ocp-3/Ocp-4.
Octopus minor (Octopus)
                                                       U1-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last annotation update)
FMRFamide-like neuropeptide RYIRF-amide.
                                                                                                                                                                                                                                                                                            01-NOV-1995 (Rel.
01-NOV-1995 (Rel.
01-NOV-1995 (Rel.
                                                                                                                                                                                                                                                                                                                                                       FARP_ARTTR P41853;
                                                                                                                                                                                                                                                                                                                                                                                            ARTTR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-Brain
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                                                                                                                          MEDLINE=94211927; Put
                                                                                                                                                                   SEQUENCE,
                                                                                                                                                                                                 Terricola; Geoplanidae;
NCBI_TaxID=132421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=20336815;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Mollusca; C. Incirrata; Octopodidae; Octopus NCBI_TaxID-89766;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        +++
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-I- FUNCTION: Cardioactive
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1; Conserv
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1; Conserv
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llarity 100.0%;
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                                    Amidation.
                                                                                                                                                                 SYNTHESIS.
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                                                                                                                            PubMed=7909164;
C., Halton D.W.,
                                                                                                                                                                                                                                                                                              322
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 754 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mollusca; Cephalopoda;
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AMIDATION.
69D4004B44600000 CRC64;
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6AB365B810000000 CRC64
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Pred. No.
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METHOD=MALDI.
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                                                                        (FMRFAMIDE RELATED PEPTIDE)
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21-JUL-1986
01-FEB-1995
                                                                                                                 MEDLINE-86232789; PubMed=2872661; Stangler J., Dircksen H., Keller R.; "Identification and immunocytochemical localization pericardial organs of the shore crab, Carcinus maena Peptides 7:67-72(1986).
                                      Neuropeptide.
SEQUENCE 5
                                                                   PIR;
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MEDLINE=86232789;
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                                                                                                                                                                                                                                                                                                "Pentapeptide (proctolin) associated with an identified neuron."; Science 213:567-569(1981).
                                                                                                                                                                                                                                                                                                                   MEDLINE-81225865; Pub
O'Shea M., Adams M.E.
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MEDLINE-76074708; PubMed-576;
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                                                        FUNCTION: STIMULATES CARDIAC OUTDUT AND HINDGUT MOTILITY, MODULATES VISCERAL AND SKELETAL MUSCLE IN MANY ARTHROPODS. TISSUE SPECIFICITY: FOUND IN THE LATERAL WHITE NEURONS AND THE CRAB PERICARDIAL ORGANS.

A01644; HOROHA.

A60411; A60411.
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   FLRF_HIRME P42561;
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MOD_RES 4 4
SEQUENCE 4 AA; 616 MW
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Evans B.D., Pohl J., Kartsonis M.A., Cala
"Identification of RFandde neuropeptides
Peptides 12:897-908(1991).
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Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida;
Arynchobdellida; Hirudiniformes; Hirudinidae; Hirudo.
NCBI_TaxID=6421;
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FMRFamide-like neuropeptide VMRF-amide.
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Peptides 12:897-908(1991).

-1- SIMILARITY: BELONGS TO THE FARP (FMRI
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Evans B.D., Pohl J., Kartsonis M.A.,
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FLRFamide.
SPECIES=N.virens;
MEDLINE=90259866;
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Hirudo medicinalis (Medicinal leech), and Helisoma trivolvis (Snail).

Eukaryota, Metazoa; Annelida; Clitellata; Arynchobdellida; Hirudiniformes; HirudinionCBI_TaxID=6421, 27815;
                                                       Price D.A., Greenberg M.J.;
Price D.A., Greenberg M.J.;
Purification and characterization of
From the central ganglia of a bivalve
Free. Biochem. 7:261-281(1977).
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MEDLINE-92195954; PubMed=1686933;
Evans B.D., Pohl J., Kartsonis M.A., Cala
"Identification of RFamide neuropeptides
Peptides 12:897-908(1991).
[2]
                                                                                                                                      SEQUENCE, AND CHARACTERIZATION.
SPECIES-M.nimbosa; TISSUE-Ganglion;
MEDLINE-78012038; PubMed-909875;
                                                                                                                                                                                             Price D.A., Greenberg M.J.; "Structure of a molluscan c Science 197:670-671(1977). [2]
                                                                                                                                                                                                                                                            SEQUENCE, AND SYNTHESIS.
SPECIES-M.ninbosa; TISSUE-Cerebral
MEDLINE-77215956; PubMed-877582;
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Eukaryota; Metazoa; Mollusca; Bivalvia;
Veneroidae; Veneridae; Macrocallista.
NCBI_TaxID-6594, 6353, 6421, 27815;
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MEDLINE-94286417; PubMed-7912428;
Madrid K.P., Price D.A., Greebberg |
"FMRFamide_related peptides from th
                                                                                                                                                                                                                                                                                                                                                                                                    Macrocallista nimbosa (Sun-ray clam),
Nerels virens (Sandworm),
Hirudo medicinalis (Medicinal leech),
                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
FMRFamide (Peak C) (Cardioexcitatory neuropeptide).
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1; Conserv
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LARITY: BELONGS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pa; Annelida; Clitellata; Hirudinida; Hirudiniformes; Hirudinidae; Hirudo.
PubMed=2342992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32, Created)
32, Last sequence up
32, Last annotation
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50.0%;
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                                                                                                                                                                                                                              cardioexcitatory
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69D40729A0000000 CRC64;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
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ides in the medi
                                                                                      a cardioexcitatory
mollusc.";
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                                                                                                                                                                                                                                                                                                                                                                         Heteroconchia;
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ney of
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                                                                                                                                                                                                                                                                                  Visceral ganglion;
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Best Loc
Matches
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Best Local
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P58707;
15-JUN-2002 (Rel. 4
15-JUN-2002 (Rel. 4
15-JUN-2002 (Rel. 4
                                                                   MOD_RES
                                                                                                                      group.
                                                                                                                                                                                                Anthopleura elegantissima (Sea anemone).
Eukaryota; Metazoa; Cnidaria; Anthozoa;
Nynantheae; Actiniidae; Anthopleura.
NCBI_TaxID-6110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptides
[5]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-92195954; PubMed-1686933;
Evans B.D., Pohl J., Kartsonis M.A., Cala
"Identification of RFamide neuropeptides
Peptides 12:897-908(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptides [4]
                                                                                                                                              Grimmelikhuijzen C.J.P., Rinehart K.L. Jr., Jac
Reinscheid R.K., Nothacker H.-P., Staley A.L.;
"Isolation of L-3-phenyllactyl-Leu-Arg-Asn-NH2
                                                                                                                                                                                                                                                                                                                                                                                                                  PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPECIES-H. trivolvis; MEDLINE-94286417; Pub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPECIES-H.medicinalis;
                                                                                                                                      anemone neuropeptide
                                                                                                                                                                       SEQUENCE, AND MASS-SPECTROMETRY.
MEDLINE=90319122; PubMed=1973541
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptides 15:31-36(1994).
-I- FUNCTION: MYOACTIVE; CARDIOEXCITATORY SUBSTANCE.
-ACTIVITIES INCLUDE AUGMENTATION, INDUCTION, AND I
CARDIAC CONTRACTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Madrid K.P., Price
"FMRFamide-related
                                                           SEQUENCE
                                                                                    Neuropeptide;
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MOD_RES
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                                                                                            TISSUE SPECIFICITY: Neuron-specific.
MASS SPECTROMETRY: MW-549.3; METHOD-FAB
                                                                                                             SUBCELLULAR LOCATION:
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A60418;
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llarity 100.0%;
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A60418.
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J., Kartsonis M.A.,
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PubMed=7912428;
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                                                                                                                     U.S.A. 87:5410-5414(1990).
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les from the kidney of the
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                                                          AMIDATION.
64540729A0000000
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Pred. No. 1.1e
1; Mismatches
                                 Score 5; I
                                                                           L-3-PHENYLLACTYL.
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                         Mismatches
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                                         DB 1;
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                                                                                                                                                                                                                 Zoantharia;
                                 1.1e+05
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                                                                                                                                      amino-terminal
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RRITAR ROCCOCOS
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RESULT 12
TUFT_HUMAN
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P58706;
15-JUN-2002 (Rel. 4
15-JUN-2002 (Rel. 4
15-JUN-2002 (Rel. 4
                                                                                                                                                                                           21-JUL-1986
21-JUL-1986
16-OCT-2001
MEDLINE-72187087; PubMed-4112769; Nishloka K., Constantopoulos A., Satoh P.S., N"The characteristics, isolation and synthesis stimulating peptide tuftsin."; Biochem. Biophys. Res. Commun. 47:172-179(1972[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Proc.
                                                                                                                                               Homo sapiens (Human).
Eukaryota; Metazoa; C
                                                                                                                                                                            Phagocytosis-stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Isolation of two novel neuropeptides from sea anemor biologically active L-3-phenyllactyl-Tyr-Arg-Ile-NH2 des-phenyllacty fragment Tyr-Arg-Ile-NH2."; peptides 12:1165-1173(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=92270459; PubMed=1821096;
Nothacker H.-P., Rinehart K.L. Jr.,
Grimmelikhuijzen C.J.P.;
                                                                                       SEQUENCE
                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                   Mammalia; Eutheria;
                                                                                                                                                                                                                                       P01858;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McFarlane I.D., Hudman D., Nothacker H.-P., Grimmelikhuijzen "The expansion behaviour of sea anemones may be coordinated inhibitory neuropeptides, Antho-Khamide and Antho-Rhamide.", Proc. R. Soc. Lond., B, Biol. Sci. 253:183-188(1993).
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Nothacker H.-P., I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nynantheae; Actiniidae; Anthopleura
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Eukaryota; Metazoa; Cnidaria; Anthozoa;
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(Rel.
(Rel.
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ilarity 100.0%;
Conservative
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Α.
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                                                                                                                               Chordata; (Primates;
                                                                                                                                                             . Created)
L. Last sequence update)
O. Last annotation update)
''^~ peptide (Tuftsin).
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annotation update)
Antho-Riamide II]
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ANTHO-RIAMIDE II.
L-3-PHENYLLACTYL.
AMIDATION.
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                                                                                                                                Craniata; Vertebrata; Catarrhini; Hominidae
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                47:172-179(1972)
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                                                           Satoh P.S., Najjar V.A.;
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                                                                                                                                  Hominidae;
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y be coordinated l
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RESULT 14
LUXE_VVET
ID LUXE_V
AC P24272
DT 01-MAR
DT 01-OCT
DE LONG-C
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GN LUXE.
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Best Local
                                                      P24272;
01-MAR-1992 (Rel. 21, Createu,
01-MAR-1992 (Rel. 21, Last sequence update)
01-CCT-1996 (Rel. 34, Last annotation update)
Long-chain-fatty-acid--luciferin-component ligase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "The physiological role of the lymphoid system, VI. The stimulatory effect of leucophilic gamma globulin (leucokinin) on the phagocytic activity of human polymorphonuclear leucocyte."; Biochemistry 6:3386-3392(1967).
                                                                                                                                 LUXE_VIBFI P24272;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   P01157;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
21-JUL-1986 (Rel. 01, Last annotation
 MEDLINE=91072226;
                             Vibrio fischeri.
Bacteria; Proteobacteria;
NCBI_TaxID=668;
                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                 Schlesinger D.H., Pickart L., Thaler M.M.; "Growth-modulating serum tripeptide is glycyl-histidyl-lysine."; Experientia 33:324-325(1977).
                                                                                                                                                                                                                                                                                                                                                              MEDLINE=77162369; PubMed=858356;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Growth-modulating peptide.
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                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa;
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                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                              Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human)
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                                                                                                                                                                                                                                                                                     A01421; G
                                                                                                                                                                                                                                                                                                           MISCELLANEOUS: THIS SERUM TRIPEPTIDE HAS GROWTH OF SOME CELL TYPES AND TO INHIBIT
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  PubMed=2254256
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                                          gamma subdivision;
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J. Bacteriol. 172:6797-6802(1990).

-I- FUNCTION: ACYL-PROTEIN SYNNHETASE ACTIVATES TETRADECANOIC ACID.

-IT IS A COMPONENT OF THE FATTY ACID REDUCTASE COMPLEX RESPONSIBLE FOR CONVERTING TETRADECANOIC ACID TO THE ALDEHYDE WHICH SERVES AS SUBSTRATE IN THE LUCIFERASE-CATALYZED REACTION.

-I- CATALYTIC ACTIVITY: ATP + an acid + protein = AMP + diphosphate + an acyl-protein thiolester.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NON_TER
SEQUENCE
                                                                                                                                                                             "Homology and distribution of CO de carboxydotrophic bacteria."; Arch. Microbiol. 152:335-31(1989).
                                                                                          PIR;
                                                                                                                                                                                                           SEQUENCE.

MEDLINE-90055678; PubMed-2818128;

MEDLINE-90055678; PubMed-2818128;

MEDLINE-90055678; PubMed-2818128;

MEDLINE-90055678; PubMed-2818128;

MEDLINE-90055678; PubMed-2818128;

MEDLINE-90055678; PubMed-2818128;
                                                                                                                                                                                                                                                                                                                                                  01-FEB-1991 (Rel. 17, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Carbon monoxide dehydrogenase small chain (
dehydrogenase subunit S) (CO-DH S) (Fragmen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con
                                                                                                                                                                                                                                                                                                Pseudomonas carboxydohydrogena.
Bacteria; Proteobacteria; alpha
Bradyrhizobium group.
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01-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entities requires a license agreement (S or send an email to license@isb-sib.ch).
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                                                    SEQUENCE
                                                                Oxidoreductase;
NON_TER 4
                                                                                                                                                     dioxide.
-i- CATALYTIC ACTIVITY: CO + H(2)O + acceptor =
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    -!- PATHWAY: Bioluminescent fatty acid reduction system;

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                                                                                                                                          acceptor
                                                                                          PL0146; PL0146.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               man E., Kapoor S., Graham A.F., Meignen E.A.;
Vibrio fischeri lux gene precedes a bidirectional termination
 Similarity 0; Conserv
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Pred. No. 1.1e+05;
1; Mismatches
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            Score 2; DB 1;
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POLYPEPTIDE
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ll chain (EC
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30-MAY-2000
30-MAY-2000
Thorpe A.;
                                                                                 TISSUE-Cerebral ganglion, and Thoracic MEDLINE-98121193; PubMed-9461295;
                                                                                                                         Brachyura; Eubrachyura; NCBI_TaxID=6759;
                                                                                                                                                                                                                                                                                                                                                                                                                                             McFarlane I.D., Hudman D., Nothacker H.-P., Grimmelikhuijzen C.
"The expansion behaviour of sea anemones may be coordinated by
inhibitory neuropeptides, Antho-Rhamide and Antho-Riamide.";
Proc. R. Soc. Lond., B. Biol. Sci. 253:183-188(1993).
-I- FUNCTION: Inhibits spontaneous contractions in several musc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nothacker H.-P., Rinehart K.L. Jr., Grimmelikhuijzen C.J.P., "Isolation of L.3-phenyllactyl-Phe-Lys-Ala-NH2 (Antho-KAamide), novel neuropeptide from sea anemones."; Biochem. Biophys. Res. Commun. 179:1205-1211(1991).
                                                                         Duve H.,
                                                                                                                                                                Carcinus maenas (Common shore
                                                                                                                                                                            Carcinustatin
                                                                                                                                                                                                                     AL14_CARMA
P81817;
                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Cnidaria; Anthoz
Nynantheae; Actiniidae; Anthopleura.
                                                                                                       SEQUENCE.
                                                                                                                                              Malacostraca;
                                                                                                                                                        Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                              Neuropeptide; Amidation.
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Eukaryota; Metazoa; Cnidaria; Anthozoa;
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15-JUN-2002 (Rel.
15-JUN-2002 (Rel.
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Eumalacostraca; Eucarida; Decapoda;
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41,
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39,
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Last sequence Last annotation
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                                                                       Maestro
                                                                                                                                    Portunoidea;
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Pred. No. 1.1e+05;
1; Mismatches
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Mandibulata; Panc
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                                                                      Scott A.G.,
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b Carcinus mae
                    OR NEUROMODULATOR
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P13973;
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SEQUENCE
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                                                 Bacteria; Proteobacteria; Escherichia.
                                                                                   Escherichia coli
Plasmid IncFII R
                                                                                                                           TRAM
                                                                                                                                            TraM
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-I- FUNCTION: IN PRESENCE OF 2,4-D, STIMULATES PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-20212743; PubMed-10750705;
Hanai H., Matsuno T., Yamamoto M.,
Kamada H., Sakagami Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Daucus carota (Carrot).
Eukaryota; Viridiplantae; Stre
Eukaryota; Viridiplantae; Spermatophyta; Magnoliophyta;
Asteridae; euasterids II; Apia
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16-OCT-2001
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MEDLINE=20212743; PubMed=107
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16-OCT-2001 (Rel.
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SIMILARITY: BELONGS TO THE PHYTOSULFOKINE FAMILY.
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SEQUENCE FROM N.A

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Sus scrofa (Pig),
Ovis aries (Sheep),
Ovis aries (Sheep),
Bombina orientalis (Oriental fire-bellied toad), and
Notophthalmus viridescens (Eastern newt) (Triturus viridescens)
Rutaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostom
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
stimulating hormone is spectrometry.";
Org. Mass Spectrom. 5
[4]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Identification and characterization of the produce and tray genes of plasmid R100.";

J. Bacteriol. 170:2749-2757(1988).

-i- FUNCTION: TRANSFER GENE PROTEIN. IS INVOLVED 1 PROCESS OF BACTERIAL CELLS FOR THE EXCHANGE OF -i- SUBCELLULAR LOCATION: Cytoplasmic.

-i- SUBCELLULAR LOCATION: Cytoplasmic.
                                                                                        Ward
"The
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                                                                                                                                 SPECIES-Sheep;
Desiderio D.M.
                                                                                                                                                                                                                  Boler J., Enzmann F., Folkers K., Bowers C.Y., Schally A.v "The identity of chemical and hormonal properties of the treleasing hormone and pyroglutamyl-histidyl-proline amide. Biochem. Biophys. Res. Commun. 37:705-710(1969).
                                                                                                                                                                                                                                                                                                        SPECIES=Pig;
MEDLINE=70039904; PubMed=4982117;
                                                                                                                                                                                                                                                                                                                                                                                                                                       SPECIES-Pig; TISSUE-Hypothalamus; MEDLINE-70136150; PubMed-4984938; Nair R.M.G., Barrett J.F., Bowers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR;
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                                                                                                                                                                                                                                                                                                                                                                                       Nair R.M.G., Barrett J.F., Bowers C.Y., Schally A.V.; "Structure of porcine thyrotropin releasing hormone."; Biochemistry 9:1103-1106(1970).
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Inamoto S., Yoshio
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                                                                                                                              TISSUE-Hypothalamus;
Jr., Burgus R., Dunn
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oka Y., Ohtsubo
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15-JUL-1998
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P35904;
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-I- FUNCTION: TRH FUNCTIONS AS A REGULATOR IN THE ANTERIOR PITUITARY GLAND AND AS
                                                                                                                                                                      STRAIN-Ferussac: TISSUE-Ganglion;
MEDLINE-8927351; PubMed-257281;
Kamatani Y., Minakata H., Kenny P.T.M., Iwashita T., Wi
Funase K., Sun X.P., Yongsiri A., Kim K.H., Novales-Li
Novales E.T., Kanapi C.G., Takeuchi H., Nomoto K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yasuhara T., Nakajima T.;
"Letter: Occurrence of Pyr His-Pro-NH2 Chem. Pharm. Bull. 23:3301-3303(1975).
                   CHARACTERIZATION.
STRAIN-Ferussac; TISSUE-Heart atrium;
MEDLINE-91264856; pubMed=1675568;
Fujimoto K., Kubota I., Yasuda-Kamata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Characterization of ovi
TSH-releasing factor.";
Nature 226:321-325(1970)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPECIES-Sheep;
MEDLINE-70163386; PubMed-4985794;
Burgus R., Dunn T.F., Desiderio D
Guillemin R.;
                                                                                                                   Biochem.
                                                                                                                                                                                                                                                                                                                         Achatinacea; Achatinidae; NCBI_TaxID=6530;
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                                                                                                                     "Achatin-I, an endogenous neuroexcitatory tetrapeptide fulica Ferussac containing a D-amino acid residue."; Biochem. Biophys. Res. Commun. 160:1015-1020(1989).
                                                                                                                                                                                                                                                                                         SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                  Achatina fulica (Giant African snail).
Eukaryota; Metazoa; Mollusca; Gastropo
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Pred. No. 1.1e+05;
1; Mismatches
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15-JUN-2002 (Rel. 41, Last annotatic
Cardioactive peptides Ocp-1/Ocp-2.
Octopus minor (Octopus).
Eukaryota, Metazoa; Mollusca; Cephal
Incirrata; Octopodidae; Octopus.
                                                                                                                                                      Hormone;
MOD_RES
SEQUENCE
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EI03_LITRU
P82099;
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15-JUN-2002
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MOD_RES 2 2
SEQUENCE 4 AA; 408
                                                                                                                                                                                    active than Ocp-1.
-i- SUBCELLULAR LOCATION: Secreted.
-i- PTM: Ocp-2 has L-Phe instead of D-Phe.
-i- MASS SPECTROMETRY: MW-395.2; METHOD-MALDI.
                                                                                                                                                                                                                                                                                             TISSUE-Brain;
MEDLINE-20336815; PubMed=10876044;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Crystal structure and molecular conformation of (H-Gly-D-Phe-Ala-Asp-OH), an endogenous neuropep D-amino acid residue.";
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                                                                                                                                                                                                                                              Peptides 21:623-630(2000).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Purification of achatin-I from the atria of the African Achatina fulica, and its possible function."; Biochem. Biophys. Res. Commun. 177:847-853(1991).
                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=89766;
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FUNCTION: NEUROEXCITATORY PEPTIDE; INCREASES THE IMPULSE FREQUENCY AND PRODUCES A SPIKE BROADENING OF THE IDENTIFIED HEART EXCITATORY NEURON (PON); ALSO ENHANCES THE AMPLITUDE AND FREQUENCY OF THE HEART BEAT. HAS ALSO AN EFFECT ON SEVERAL OTHER MUSCLES.
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inotropic effects on the hea
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Doi M., Inoue M.,
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dae; Octopus.
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Best Local Similarity
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TISSUE-Skin secretion;
Wabnitz P.A., Bowie J.H., Tyler M.J.,
Wabnitz From the skin glands of the
"Peptides from the skin glands of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EI04_LITRU
P82100;
                                                                                                                                                                   Amphibian skin; Amidation.
MOD_RES 5 5
SEQUENCE 5 AA; 616 MW;
                                                                                                                                                                                                                                                         Aust.
                                                                                                                                                                                                                                                                        rubella.";
                                                                                                                                                                                                                                                                                               Wabnitz P.A., Bowie J.H., Tyler M.J., "Peptides from the skin glands of the Litori electrica. Comparison with the
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Litoria rubella (Desert tree frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
Pelodryadinae; Litoria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Electrin
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15-JUN-2002 (Rel. 41,
15-JUN-2002 (Rel. 41,
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Amphibia; Batrachia; Anura; N
Pelodryadinae; Litoria.
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15-JUN-2002 (Rel.
15-JUN-2002 (Rel.
                                                                                                                                                                                                                                                                                                                                                           TISSUE=Skin secretion;
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MOD_RES 5 5
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ELLULAR LOCATION: SECRETED.
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Last annotation update)
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61F2D1A059A00000 CRC64;
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annotation
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1; Mismatches
                                                                              Score 1; DB 1;
Pred. No. 1.1e+05;
1; Mismatches
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Australian buzzing
skin peptides from
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J. Biol. Chem. 261:16704-16713(1986).
J. Biol. Chem. 261:16704-16713(1986).
I- PUNCTION: EXHIBITS UNUSUAL SHARK REPELLENT AND SURFACTANT PROPERTIES. FORMS VOLTAGE-DEPENDENT, ION-PERMEABLE CHANNE!
IN MEMBRANES. AT HIGH CONCENTRATION CAUSES CELL MEMBRANE 1
I- SUBGUNIT: MONOMER. IN AQUEOUS SOLUTION EXISTS AS A TETRAME!
I- SUBCELLULAR LOCATION: Secreted.
I- SIMILARITY: BELONGS TO THE PARDAXIN FAMILY.
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Actinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei;

Acanthomorpha; Acanthopterygii; Percomorpha; Pleuronectiformes;

Soleoidei; Soleidae; Pardachirus.
                                                                                                                                  "Tyler M.J., Wallace J.C.;
"The structure of new peptides from the Australin red tree frog
'Litoria rubella'. the skin peptide profile as a probe for the
of evolutionary trends of amphibians.";
Aust. J. Chem. 49:955-963(1996)
                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata;
Amphibia; Batrachia; Anura; Ne
Pelodryadinae; Litoria.
NCBI_TaxID=104895;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Skin secretion;
MEDLINE=87057369; PubMed=3782138;
                                                                                                                                                                                   Steinborner
                                                                                                                                                                                                        SEQUENCE,
                                                                                                                                                                                                                                                                      15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat Rubellidin 1.1.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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Pardachirus
                                                                            Amphibian skin.
SEQUENCE 5 AA
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                                                                                             -1- TISSUE SPECIFICITY: SECRETED BY THE SKIN-1- MASS SPECTROMETRY: MW-598; METHOD=FAB.
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S.T., Wabnitz P.A.,
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Pred. No. 1.1e+05;
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sea moses
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RESULT 27
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15-JUN-2002 (-JUN-2002
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RE31_LITRU
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Aust. J. Chem. 49:955-963(1996).
                                                                                   MOD_RES
SEQUENCE
                                                                                                                                                                                  "The structure of new peptides from the Australin Litoria rubella". the skin peptide profile as a pof evolutionary trends of amphibians.";
Aust. J. Chem. 49:955-963(1996).
                                                                                                                                                                                                                                          TISSUE=Skin secretion;
Steinborner S.T., Wabnitz P.A., Waugh R.J.,
Tyler M.J., Wallace J.C.;
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Steinborner S.T., Wabnit
Tyler M.J., Wallace J.C.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
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15-JUN-2002 (Rel. 41, Last seq)
15-JUN-2002 (Rel. 41, Last annormalidin 3.1.
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SEQUENCE 5 AA
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Amphibia; Batrachia; Anura; Neobatrachia;
Pelodryadinae; Litoria.
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                                                                                                  Amphibian skin; Amidation.
MOD_RES 5 5
                                                                                                                           ACTIVITY.
-!- TISSUE SPECIFICITY: SECRETED
-!- MASS SPECTROMETRY: MW=655; MI
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71A9C9CB10300000 CRC64;
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annotation
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Pred. No. 1.1e+05;
1; Mismatches
                                         Score 1; DB 1;
Pred. No. 1.1e+05;
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a; Bufonoidea; Hylidae;
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15-JUN-2002 (Rel. 41, Last sequ
15-JUN-2002 (Rel. 41, Last anno
Rubellidin 3.2.
Litoria rubella (Desert tree fr
Eukaryota: Metazoa: Chordata: C
Amphibia; Batrachia; Anura; Neo
Pelodryadinae; Litoria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUGA_ACHDO STAN
P19991;
01-FEB-1991 (Rel. 1
01-FEB-1991 (Rel. 1
01-OCT-1996 (Rel. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Acheta domesticus (House cricket).

Eukaryota; Metazoa; Arthropoda; Mandibulata; Pancrustacea; Insecta; Pterygota; Neoptera; Orthopteroidea; Orthoptera; Eryllidae; Gryllinae; Acheta.

NCBI_TaxID=6997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-Skin secretion;
TISSUE-Skin secretion;
Wabnitz P.A., Bowle J.H., Tyler M.J.,
"Peptides from the skin glands of the
Litori electrica. Comparison with the
                                                                                                                                                                                                                                                                                                                                                                                Wicker C., Wicker C.;
"Isolation and structure of a peptide isolated
suboesophageal ganglion of Acheta domesticus (c
Comp. Blochem. Physiol. 88C:185-187(1987).
                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE.
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SEQUENCE 5 AA;
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NCBI_TaxID=104895;
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TISSUE SPECIFICITY:
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AA; 476
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SHOW NEITHER NEUROPEPTIDE
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17, Last sequence update)
34, Last annotation update)
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Neobatrachia;
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Australian buzzing
skin peptides from
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a; Bufonoidea; Hylidae;
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SO PER PROPERTY OF SO OF
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UC22_MAIZE
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TPIS_CANFA
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Matches (
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01-OCT-1996 (Rel.
15-JUL-1998 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                 Panicoideae; Andropogoneae; NCBI_TaxID=4577;
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TISSUE=Heart;
MEDLINE=98163340;
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NCBI_TaxID=9615;
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                                                                                                     Maize-2DPAGE;
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                                                                                                                                                                                                                                                                                                                     TISSUE=Coleoptile;
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HSC-2DPAGE; P54714; DOG.
InterPro; IPR000652; Tr1
PROSITE; PS00171; TIM; P
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MISCELLANEOUS: ON THE
PROTEIN IS: 6.1, ITS
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Conservative
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SEQUENCE
                                                                                            Touzet P., Riccardi F., Morin C., Damerval pernollet J.-C., Zivy M., de Vienne D.; "The maize two dimensional gel protein data genome analysis program."; Theor. Appl. Genet. 93:997-1005(1996).
                                                                                                                                                                                                                                    Eukaryota; Viridiplantae; Streptophyta; Ex
Spermatophyta; Magnoliophyta; Liliopsida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Electrophoresis 18:2795-2802(1997)
-1- CATALYTIC ACTIVITY: D-glyceral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; C
Mammalia; Eutheria; Carnivora;
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t J.M., Wheeler
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, Last annotation update)
2D-page of etiolated coleoptile
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MW IS: 30.4
  72CB19C9C0300000
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a; Poales; Poaceae; PACC clade;
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P02731;
21-JUL-1986 (Rel. 01, Created
21-JUL-1986 (Rel. 01, Last se
21-JUL-1986 (Rel. 01, Last an
Eosinophilotactic peptides.
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DCML_PSECH
P19916;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   carboxydotrophic bacteria.";
Arch. Microbiol. 152:335-341(1989).
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Pseudomonas carboxydohydrogena.
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15-JUN-2002 (Rel. 41, Last annotation update)
Carbon monoxide dehydrogenase large chain (EC 1
dehydrogenase subunit L) (CO-DH L) (Fragment).
                              anaphylaxis.";
                                                                                    MEDLINE=76078412; PubMed=1060093; Goetzl E.J., Austen K.F.;
                                                                                                                                                                                         Homo sapiens (Human)
Eukaryota; Metazoa; (
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Kraut M., Hugendieck I., Herwig S
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                                                                                                                          SEQUENCE
                                                                                                                                                         Mammalia; Eutheria; NCBI_TaxID=9606;
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                                                  "Purification and synthesis of eos
human lung tissue: identification
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COFACTOR: Molybdenum
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72:4123-4127(1975).
IDES ARE RELEASED FROM
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P13071;
01-JAN-1990
01-JAN-1990
16-OCT-2001
                                                                                             01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Adenosylmethionine-8-amino-7-oxononanoate aminotransferase
(EC 2.6.1.62) (7,8-diamino-pelargonic acid aminotransferase
                                                                                                                                                                                                                                                                                                                                            "Extended N-terminal sequen subunit from yeast mitochon FEBS Lett. 284:51-56(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                    Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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                                                           Citrobacter freundii.
Bacteria; Proteobacteria;
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01-JUN-1994
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  Shiuan
          SEQUENCE FROM N.A. MEDLINE-89006280;
                                                   Citrobacter.
                                                                                         aminotransferase)
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 Campbell
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al 60S ribosomal protein L1 (YmL1)
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ck H.-R., Kruft
           PubMed=2971595;
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RESULT 37
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SEQUENCE FROM N.A.

MEDLINE-89006280; PubMed=2971595;

Shiuan D., Campbell A.;

"Transcriptional regulation and gene arrangement of Escherichia coli,
Citrobacter freundii and Salmonella typhimurium biotin operons.";

Gene 67:203-211(1988).

-I- CATALYTIC ACTIVITY: Dethiobiotin + sulfur = biotin.

-I- CATALYTIC ACTIVITY: Bethiobiotin + sulfur = biotin.

-I- PATHWAY: Biotin biosynthesis; last step.
                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                         EMBL; M21922;
Biotin blosynt
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01-JAN-1990 (Rel. 13, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Biotin synthase (EC 2.8.1.6) (Biotin synthetase)
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InterPro; IPRO0954; Aminotran.3.
PROSTITE; PS00600; AA_TRANSFER_CLASS_3; PARTIAL.
Biotin biosynthesis; Transferase; Aminotransfer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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-I- CATALYTIC ACTIVITY: S-adenosyl-L-methionine + 8-amino-7-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -i- COFACTOR: PYRIDOXAL PHOSPHATE.
-i- PATHWAY: Biotin biosynthesis.
-i- SUBUNIT: HOMODIMER.
-i- SIMILARITY: BELONGS TO CLASS-III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=546;
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UXA4_CHLTR
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01-OCT-1994 (Rel. 30, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Unknown protein from 2D-page from elementary body (Fragment).
                                                                                                                    Siena-2DPAGE;
NON_TER
                                                                                                                                                                 STRAIN-L2/434/Bu;
Bini L., Santucci A., Magi
Comanducci M., Christianen
Pallini V.;
                                                                                                                                                                                                                       Chlamydia trachomatis.
Bacteria; Chlamydiales; Chlamydiaceae; Chlamydia
NCBI_TaxID=813;
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                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                       P38005;
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                                                                                                                            -i- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PROTEIN IS: 4.5, ITS MW IS: 28 kDa.
Siena-2DPAGE: P38005; -.
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Vtretou E., Ratti
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